

PUBLIC UTILITY COMMISSION OF OREGON
STAFF REPORT
PUBLIC MEETING DATE: April 21, 2016

REGULAR _____ CONSENT X EFFECTIVE DATE April 22, 2016

DATE: April 12, 2016

TO: Public Utility Commission

FROM: George R. Compton and Jason Salmi Klotz

THROUGH: Jason Eisdorfer, Marc Hellman, and Michael Dougherty

SUBJECT: PACIFIC POWER: (Docket No. ADV 224/Advice No. 16-03) Extends Schedule 215, Irrigation Time-of-Use Supply Service Pilot, for another two years.

STAFF RECOMMENDATION:

Staff recommends that the Commission approve Pacific Power's (PacifiCorp's or Company's) Schedule 215, Irrigation Time-of-Use (TOU) Supply Service Pilot, for an additional two years effective April 22, 2016, and subject to the two agreed-upon conditions stated in the *Recommendations* section of this Staff Report.

ISSUE:

Whether the Commission should approve PacifiCorp's Advice No. 16-03, which seeks to amend Schedule 215, Irrigation TOU Supply Service Pilot by extending the pilot for an additional two years and allowing additional participation.

APPLICABLE LAW:

PacifiCorp's third revisions to Tariff P.U.C. OR No. 36 Sheet Nos. 215-1 and 215-2 of Schedule 215, Irrigation TOC Pilot Supply Service were submitted in compliance with ORS 757.205, OAR 860-022-0025, and OAR 860-022-0030. Energy utilities must file tariffs for services provided to retail customers pursuant to ORS 757.205.

OAR 860-022-0025 sets forth filing requirements for filing tariffs or schedules changing rates. OAR 860-022-0030 provides requirements for filing tariffs or schedules naming increased rates. PacifiCorp's proposed revisions to Schedule 215 do not entail rate changes within Schedule 215 or any other Schedule. The Schedule 215 tariff revisions

merely involve the addition of up to 25 volunteer-participants for the two-year pilot extension.

DISCUSSION AND ANALYSIS:

Background

Optional time-of-use rates have been available under Schedule 210 to several customer classes, including Schedule 41 Agricultural Pumping Service customers, since some time prior to the year 2012. Two years ago, a pilot was introduced, limited to 95 customers within Schedule 41 that attempted to encourage greater TOU participation by way of increasing the off-peak credit. Starting in 2015, and now proposed to continue for two more years, the Schedule 215 pilot off-peak credit has been 3.161 cents per kWh—offset by an on-peak surcharge of 22.313 cents per kWh. (Schedule 215 only applies to the summer months, June through August, inclusive, and the on-peak period is defined as 2 pm to 6 pm, Monday through Friday. The credit and surcharge are added to the standard rates contained in Supply Service Schedules 200 and 201. The Schedule 41 summertime rates for those latter two schedules sum to 5.645 cents per kWh.)

On December 1, 2015, “the Company filed a compliance report to Advice Nos. 14-005, 15-003 and 15-006 describing the [Irrigation Time-of-Use Supply Service] pilot and presenting the an [sic] initial evaluation showing that 80 out of 91 participating meters saved money during the 2015 summer pilot season by shifting or reducing on-peak energy usage with an average summer bill savings of 28 percent.”¹ That evaluation pertained to the second year of the two-year pilot. Extremely low participation in the first year of the pilot led to what was essentially a re-start of the pilot, with lower, more appealing TOU rates for the second year of the pilot.

On February 17, 2016, PacifiCorp filed Advice No. 16-03, Schedule 215, Irrigation TOU Supply Service Pilot, which is the subject of this Staff Report. Besides the request for a two-year extension of the pilot and a request to expand pilot participation by up to an additional 75 meters, the filing also presented the results of a survey that was taken of pilot participants in November 2015.

Analysis

¹ PacifiCorp Advice No. 16-03 at 1.

As stated in the application, “[t]he purpose of the pilot is to test the interest, willingness, and ability of irrigators in Oregon to shift their usage away from designated on-peak periods.”² The second year of PacifiCorp’s pilot appears to have been a success in terms of loads shifted away from peak periods, substantial billings savings by participants, and an expressed willingness of the large majority (85 percent) of survey respondents to continue in a TOU program.

Staff submitted 23 information requests to better understand the pilot program. At the outset, the Company was asked what additional information might be obtained from extending the pilot by two years that had not been produced by the successful second year of the original pilot. In response, PacifiCorp referred to the fact that drought conditions caused the initial pilot’s second year to be non-representative. Staff was not persuaded that such a need would, by itself, justify two additional pilot years.

Apparently, the main effect of the drought was to reduce the amount of pumping, partly due to less planted acreage. Staff believes that it is unlikely that increased pumping would have been limited largely to the peak periods rather than manifesting itself across all periods. In other words, under normal/non-drought conditions, TOU rates would likely still have had the desired effect of shifting loads away from the peak.

Another reason given for the two-year extension was to obtain more customer usage data by expanding the pilot participation. Accordingly, the application also sought to add 75 additional meters/participants to the program. The Company stated, “[c]ustomer interest in participating in the pilot has been high and additional participants would provide additional data for more complete pilot evaluation. Furthermore, comparing data between existing and new participants could provide further insight on customer motives and abilities.”³ Staff does not discount those intentions, but believes their objectives can be achieved with fewer added participants. The rates that ultimately are duly implemented may not be as attractive to the participating customers as are the pilot rates. To minimize the risk of having an unnecessarily large number of customers who are distressed by what in practical terms would be their own rate increase, Staff recommended that the pilot expansion be limited to 25 meters rather than 75 meters. The level of enthusiasm registered by customers hoping to be included in the 25 group should be a good indicator of how many would have signed up as part of PacifiCorp’s proposed 75 additional participants. The filing of PacifiCorp’s substantive report on the results of the pilot, including the requested topics identified in the Recommendations section of this report, should precede any potential application in the future to further expand participation in this pilot.

² *Id.*

³ *Id.* at 4.

Staff asked additional questions related to the costs (including revenue losses) and benefits (including utility system cost savings) from the agricultural TOU program—both for the pilot and assuming TOU's full availability to all Schedule 41 customers. Queries regarding practical implementation matters were also submitted.

As indicated, Staff is not entirely persuaded by the explicitly expressed reasons for the pilot's extension in time and its expansion in meter count. Nevertheless, there is a compelling reason for continuing the pilot: it became clear from some of its answers to Staff's information requests that PacifiCorp is not prepared at this time to expand its TOU offering to all of its Schedule 41 customers on a regular tariffed basis. Various analytics have not been developed—that is, homework-style analytics that are independent of whatever empirical information is gleaned from simply observing that target customers will be attracted to a rate design that will allow them to save on their billings by shifting much of their load away from the weekday, four-hour peak periods. A number of analyses must be conducted that would provide confidence that *a specific set* of agricultural TOU rates (i.e., not necessarily those in the pilot) would not only be advantageous to self-selected customers, but that, if implemented, they would also not be harmful to the utility or its other customers.

There are several outstanding analytical challenges. For example, TOU program costs and benefits have *not* been estimated. As stated in its response to OPUC Data Request 2, “[t]he Company has not quantified the extent of long-run utility cost savings directly related to the time-of-use rate program and has not extrapolated the single year of pilot results to estimate the impacts of an on-going program available to all irrigation customers.” While the 2013 Integrated Resource Plan foresees a market potential of 3.8 MW of avoided capacity needs owing to optional irrigation TOU rates, the Company has thus far only measured energy shifts and not demand/capacity reductions, *per se*.

There is also the matter of reduced revenues owing to TOU load shifts. As stated in its response to OPUC Data Request 3, “[l]astly, in order to consider changes to the permanent TOU program (which is available on Schedule 210), the Company would need to consider recovery of lost revenues from TOU credits.” Lost revenues will be a function of the actual TOU rates, *per se*; and depending upon the levels of TOU program costs and system savings, it may be appropriate to alter the TOU rates up or down from the pilot levels in order to better balance overall program costs and benefits.

In conclusion, Staff was hopeful that PacifiCorp might have been in a better position to move to full-scale implementation given that the level of success in achieving its stated purpose did not seem to justify the pilot's expansion and two-year extension. The next section of this report describes how the Company intends to alleviate Staff's concerns

by making advanced TOU implementation preparations before the end of the extended pilot program.

Recommendations

1. To attend to Staff's analytic concerns regarding moving from a pilot to TOU's general availability for all of its agricultural customers, the Company made the following commitment, which appeared in its first Supplemental Response to OPUC Data Request No. 3:

[T]he Company intends to prepare an estimate of the capacity reduction related to the pilot as well as a more fully developed estimate of potential cost savings (both near-term and long-term) for irrigation time-of-use (TOU) and validate the assumptions in the IRP Class 3 Potential Study. The Company will provide this information to the Commission in a report following the end of the 2016 irrigation season. As part of the report, the Company will also describe its plans for the pilot including how long it proposes to continue the pilot and the potential timing for a permanent tariff.

In addition, PacifiCorp will investigate the following matters as part of its 2016 report:

- a. The desirability of superimposing critical-peak-pricing onto modified TOU rates;
 - b. The appropriateness of creating a separate agricultural TOU class for cost allocations purposes so as to keep the costs and benefits of the TOU within the class;
 - c. The overall program benefits implications of making the permanent TOU rates or defined on-peak period less attractive to the pumpers so as to reduce the need for compensatory general rate increases to offset the revenue loss associated with the TOU pumpers' load shifts;
 - d. Identification of system benefits that may accrue if the pilot is offered as a full program;
 - e. Whether enabling technology might bolster event response and ease of participation.
2. PacifiCorp's LSN (less-than-statutory notice) filing⁴ represents its acceptance of Staff's recommendation that the pilot expansion be limited to 25 meters rather than 75 meters.

Conclusion

⁴ PacifiCorp Advice No. 16-03 Replacement Sheets and Application of LSN, filed April 8, 2016.

In order to gather desired customer data and for PacifiCorp to have the time to perform the various analytic studies that are required prior to the general implementation of a new agricultural time-or-use rate schedule, Staff finds it appropriate for the Company to extend its Schedule 215 pilot for two more pumping seasons, beginning in May of 2016.

PROPOSED COMMISSION MOTION:

Approve Pacific Power's Schedule 215, Irrigation TOU Supply Service Pilot, on less than statutory notice, for another two years effective April 22, 2016, subject to the reporting requirements and customer limitation as presented in the Recommendations portion of this Staff Report.